



Savannah River Site  
Citizens Advisory Board

Key criteria for Board membership includes a time commitment and the desire and ability to work towards better and informed recommendations.

To apply for membership to the Citizens Advisory Board, please call 1-800-249-8155.

*\*Board Beat* is published semiannually by the Savannah River Site Citizens Advisory Board. Content is provided by Board members and support staff. Please send your comments and suggestions to:  
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Upcoming 2003 - 2004  
Citizens Advisory Board Meetings

|                         |                                    |
|-------------------------|------------------------------------|
| November 17 – 18, 2003  | Embassy Suites, N. Charleston, SC  |
| January 26 - 27, 2004   | Hilton Oceanfront, Hilton Head, SC |
| March 22 - 23, 2004     | Sheraton Hotel, Columbia, SC       |
| May 24 - 25, 2004       | Radisson Hotel, Savannah, GA       |
| July 26 - 27, 2004      | Newberry Hall, Aiken, SC           |
| September 27 - 28, 2004 | Ramada Limited, Beaufort, SC       |
| November 15 - 16, 2004  | Sheraton Augusta, Augusta, GA      |

Note: Individual committee meetings will be held as required.

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FALL 2003



SAVANNAH RIVER SITE CITIZENS ADVISORY BOARD

# Board Beat

## DOE Guidance Creates Concern for SRS Stakeholders

On July 7, 2003, Department of Energy Assistant Secretary Jessie Hill Roberson issued revised guidance for the Office of Environmental Management Site Specific Advisory Boards. This guidance proposed new procurement mechanisms be used in support of all Boards by converting to either a direct DOE grant or contract thereby eliminating prime contractor support. Upon notification, SRS stakeholders immediately voiced strong opposition to this guidance. The primary concerns were a loss of independence and credibility; complicated communications and flow of information to the Board and public; the lack of involvement in a decision with major impacts to the board; crippled board operations with the potential change in staff and weakened ability for the SRS CAB to perform effectively.

Assistant Secretary Roberson responded on August 15 to SRS CAB Chair Wade Waters and numerous other letters by assuring the SRS CAB that the Department views the SSABs as crucial to accomplishing its cleanup mission. She said DOE wants to ensure that the “integrity of the SSABs is preserved, as well as the credibility of their work product.”

Former member and Board Chair Karen Patterson noted “I am very proud of the responsible manner in which the CAB conducts its

business, and of the value of its recommendations to the Department... putting the CAB more directly under the authority of DOE will only make it harder for the CAB to prove that it is not DOE’s mouthpiece in the community.”

Members of the community at large expressed concern as well. “My opinion is that this will destroy the SSABs across the nation, said Mal McKibben, the executive director of Citizens for Nuclear Technology Awareness. “If they’re going to be controlled by DOE, they’re no longer an independent voice.”

In light of the conflict perpetuated by the new guidance, Assistant Secretary Roberson agreed to meet with SRS CAB Chair Wade Waters to arrive at a workable resolution for all interested parties. Wade Waters met with Assistant Secretary Jessie Roberson on October 10 to discuss the future of the SRS CAB administration. Mr. Waters relayed that the Assistant Secretary

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Winners of Essay Contest Honored  
Paper Pellets Used as Fuel

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# NNSA Briefs CAB on Mission to Handle Surplus Materials

National Nuclear Security Administration (NNSA) representatives Kenneth Bromberg and Sterling Franks met with the SRS CAB during the July Board Meeting in Columbia, SC to provide an overview of our nation’s strategy to handle surplus fissile materials. While part of the Department of Energy, the NNSA was created specifically to address and eliminate the potential for theft of these materials by terrorists or rogue nations. The Office of Fissile Materials Disposition under the NNSA is responsible to ensure the policies to support nuclear nonproliferation and national security are carried out.

The potential for theft of these materials was declared to be a clear and present danger that led to a joint decision by the United States (U.S.) and Russia to support nuclear nonproliferation. According to Bromberg, SRS is a key player in protecting our nation from this danger through several programs.



*Planned MOX Facility*

The first program involves a strategy for the disposition of U.S. Highly Enriched Uranium (HEU). As a result, the process to blend down surplus HEU into Low Enriched Uranium (LEU) has begun at SRS. This process produces a feed material that will be used as a nuclear fuel in commercial reactors by the Tennessee Valley Authority (TVA). The initial shipment of this material began in mid 2003 and shipments are expected to continue over the next several years. While the production of electricity is not a program goal of the NNSA, this simple method uses existing facilities and reduces the attractiveness of the HEU in support of nuclear nonproliferation goals.

Bromberg went on to say that surplus weapons grade plutonium in the U.S. and Russia is the second major concern that must be addressed to meet nuclear nonproliferation goals. Under the current agreement, both countries must each disposition 34 metric tons of plutonium in a manner to reduce the potential that these materials could be used by terrorists. When CAB members asked, “How can we be sure the Russians are doing their part?” Bromberg explained the mutual inspection process that has been implemented to ensure both parties honor the agreement.

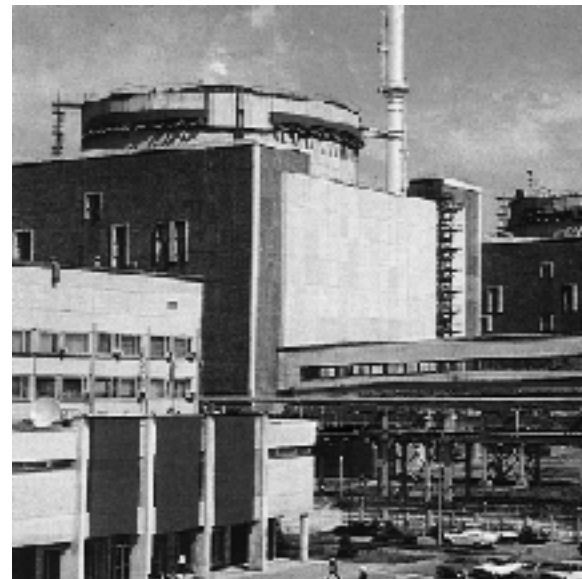
In the U.S., the disposition strategy is to construct the Pit Disassembly and Conversion Facility (PDCF) and the Mixed Oxide (MOX) Fuel Fabrication Facility at SRS. Through these facilities, 34 metric tons of U.S. weapons grade plutonium will be processed to produce MOX fuel. This fuel will be used in U.S. commercial reactors operated by Duke Power. While there is still residual plutonium in the MOX fuel, once irradiated, the plutonium is highly radioactive. Bromberg explained that the advantage of this process is that the surplus plutonium is made inaccessible and unattractive for retrieval and weapons use.

It is expected that the MOX facility will begin construction in FY 2004 with the PDCF facility to follow in FY 2006. These facilities will operate only for the period of time it takes to process the 34 metric tons of plutonium. Current schedules indicate the MOX facility will operate until 2019. Design work for the facilities is ongoing and final design approval is expected in the near future.

A major concern for most CAB members was NNSA’s policy on public involvement. The SRS CAB is chartered by DOE’s Environmental Management (EM) and the NNSA does not have a similar program. Board Member Perry Holcomb said, “NNSA has not shown the same interest in the public as its EM counterpart.” Bromberg responded that public involvement, as a component, hasn’t been addressed in the NNSA policy. The invitation from Wade Waters has helped put the issue on the table.”

Other CAB members voiced similar concerns about public involvement. In thanking Mr. Bromberg and Mr. Franks for attending the meeting, Chairman

Waters stated “This group of citizens has gained the respect of their neighbors. We are asked about NNSA projects but have had to tell the people we didn’t know anything about the NNSA. We wrote a letter to Ambassador Brooks. We have laid the groundwork and we think you need this type of organization. It has worked well for EM and we are planning to follow-up.”



*Russian plants will also convert surplus plutonium into MOX fuel*

# SRS CAB Recommendation Has National Impact

Just in case you were wondering if a volunteer board could really make a difference, look no further than the effectiveness of the SRS CAB to promote meaningful change in governmental policy. U.S. Senate Bill 1424, introduced by New Mexico Senator, Pete Domenici, includes legislative language that was derived directly from the SRS CAB Recommendation for the Waste Isolation Pilot Plant (WIPP) Non-Compliant Item Waste Acceptance Criteria.

As reported in the Spring 2003 edition of Board Beat, representatives from the SRS CAB participated in an Site Specific Advisory Board Transuranic (TRU) Waste Workshop, which resulted in 13 recommendations to DOE. While effective, the SRS CAB was not satisfied that enough had been done. Subsequently, the SRS CAB adopted its own recommendations regarding characterization of TRU waste.

WIPP is an underground waste repository that was built to take advantage of a stable salt formation that will safely shield the waste from entering the environment. SRS routinely ships TRU waste to WIPP that typically consists of discarded clothing, tools, and rags that have been contaminated by certain radioactive elements such as plutonium. The existing WIPP Waste Acceptance Criteria required expensive steps for characterization of the waste that provided little or no value added to the process. The Board’s recommendation was drafted as a means to promote the reduction of unnecessary costs while supporting the safe disposal of TRU waste.

After learning of the SRS recommendation, Wade Waters was contacted by Senator Pete Domenici’s office to discuss the issue. A copy of the recommendation was provided to the New Mexico Senator for inclusion in the bill.

This bill would change characterization requirements for TRU waste from across the nation destined for disposal at WIPP, which is located near

Carlsbad, NM. If enacted, it will eliminate three waste characterization requirements deemed unnecessary by the National Academy of Sciences and the Institute for Regulatory Science. The resulting cost savings to DOE and the taxpayers is estimated at \$700 million.

# SRS CAB Mourns Loss

*DeAnne Smoak  
1970 - 2003*



The SRS Citizens Advisory Board dedicates this issue of Board Beat to the memory of DeAnne Smoak. She resided in Savannah GA and was elected to the Board in a special election earlier this year to fill a vacancy. Although she was the newest Board member, DeAnne had already actively contributed to the Board by overseeing the annual Essay Contest. During the September meeting in Aiken, SC the Board expressed their sorrow for her unexpected passing and held a moment of silence to DeAnne’s memory.

# Essay Contest Winners



*Malcom Orr and Kendall Stevens*

*Malcom Orr of St. Paul Academy of Boys in Savannah, GA was the May 2003 essay contest winner. A dozen essays regarding why the environment is important and the students’ role in protecting the environment were submitted. Kendall Stevens was the second place winner.*

“Pollution can be reduced by conserving energy, finding cleaner ways to use energy, and by making sure waste are disposed of in the safest way possible.”

Malcom Orr  
7<sup>th</sup> Grade



# Recent Recommendations Highlighted

**Passive Treatment of F/H Area Groundwater** The SRS CAB recommends the three agencies support the shutdown of the F and H Area extraction/reinjection system and in a cooperative effort, ensure that the passive alternatives meet remediation standards and schedules. It also requests that SRS, with SCDHEC concurrence, permanently shut down the system as soon as possible to allow the groundwater system to return to natural conditions before beginning construction of passive treatment systems.

**HLW Accelerated Sludge Removal** The Board asks SRS to accelerate the implementation of the "Waste on Wheels" process, a portable sludge removal system that can be moved from tank to tank, and report on the progress of the acceleration to lower the costs and risks as soon as the information becomes available. It also asks SRS to characterize the annulus waste and evaluate the need for annulus cleaning in HLW Tank 5 and to provide a schedule for development of a plan to demonstrate the WOW process and present the plan by November 19, 2003.

**High Activity Transuranic Waste Packaging** The CAB recommends that DOE accelerate shipments of high activity TRU waste from SRS by expediting the design, certification and fabrication of the TRUPACT III shipping containers. These containers must be designed to alleviate the hydrogen gas concerns. These shipping containers are needed as soon as possible and should be available to allow the first shipment of high activity TRU waste to be compatible with the PMP shipping schedule of FY05.

**WIPP Non-Compliant Item Waste Acceptance Criteria** A recommendation that by November 19, 2003, DOE-Headquarters, working with DOE-SR and DOE-Carlsbad, develop a path forward that will eliminate non-compliant items and/or reduce the number of drums that are opened, sorted and segregated because of non-compliant items. The Board also asks DOE-SR to ensure the path forward also significantly reduces or eliminates the need to remove the non-compliant items in the large containers of TRU waste at SRS and helps to expedite the removal schedule for this waste stream.

**SRS National Pollution Discharge Elimination System (NPDES)** The SRS CAB recommends DOE work with SCDHEC to gain a minimum 3-year period and maximum 5-year period for monitoring designated outfalls that may be affected by the new limit prescribed under the revised

NPDES permit. It also requests that SRS provide a schedule for a developing a cost-benefit analysis which demonstrates water quality impacts versus the cost to achieve compliance. The recommendation also addresses the need for DOE to work with SCDHEC to develop a more reasonable approach to regulating discharges into ephemeral streams such as site specific standards. Progress reports to the Board are requested by September 22, 2003.

**Historic Preservation at SRS** The Board asks SRS and the State Historic Preservation Officer (SHPO) to expand public involvement by holding public workshops and/or educational information meetings where input from the public and former SRS workers is collected and the appropriate information on important artifacts and historic facilities is included in the historic preservation Programmatic Agreement (PA). It also asks SRS to submit a draft PA for stakeholder review prior to finalizing the agreement with SHPO.

**Deactivation & Decommissioning (D&D) Plan** In support of the Environmental Management Integrated Deactivation and Decommissioning Plan, the SRS CAB recommends that DOE ensures the D&D Program is focused on risk reduction and mitigation, not merely on reduction of the site "footprint". The recommendation also addresses the Board's concern that SRS should concentrate efforts to remove all principal sources of hazards (source terms) as the first part of the D&D activities and incorporate this concept in the next Plan revision. The Board also asks SRS to continue to press for funds to implement the program per the timeline in the Integrated D&D Plan.

**R Reactor Seepage Basin** The SRS CAB supports the R-Reactor Seepage Basis Proposed Plans and the preferred alternatives including the use of mixing zones, where applicable for remedial actions. The SRS CAB recommends DOE work with SCDHEC to avoid any costly and ineffective remedial system, such as pump and treat and re-inject, for contaminated groundwater in the R-Reactor Seepage Basins area.

**Draft West Valley Demonstration Project (WVDP) Waste Management EIS** Upon review of the draft EIS, the SRS CAB asks that as precursors to the receipt of this waste, SRS ensure adequate TRU waste storage and funding be made available to handle the additional costs. A second glass waste canister storage building should be operational prior to receipt of such waste. The Board also asks SRS to place the

*Continued on page 5*

# Preserving History While Promoting Accelerated Clean-up

CAB members spent a part of their summer hearing about two important SRS issues – deactivation and decommissioning plans and the historic preservation of cold war resources. While some might assume that the primary objectives of these issues are contradictory, CAB members have determined that both program objectives could be met with appropriate emphasis and ongoing public involvement.

During a June 2003 workshop in North Augusta, SC, DOE encouraged the CAB and general public to provide comments on the SRS Environmental Management (EM) Integrated Deactivation and Decommissioning (D&D) Plan. This plan defined end states for EM facilities, waste tanks, and remediation sites. Implementation of these plans are the cornerstone for accelerating "accelerated cleanup" of SRS as reported in the Spring 2003 Board Beat.

Workshop attendees were told that deactivation is defined as the actions following shutdown to reduce risk and maintenance costs of a facility but does not result in its ultimate closure or end state. Decommissioning is defined as those actions taken that place a facility in its final end state.

An end state represents the final condition of a facility but CAB members learned it can take different forms. One choice may be to demolish a facility. Another option is to close the facility in place with specific permanent controls such as entombment. This option



*Perry Holcomb, FD&SR Committee Chair discusses SRS D&D Plan*

## Recent Recommendations cont.

high activity TRU waste on a priority disposal schedule with the appropriate certified and licensed shipping containers. Further, the Board recommends that for every volume of WVDP TRU waste received by SRS, a shipment of high activity SRS TRU waste equal to twice the receiving vol-

is known as in situ disposal.

During the same time frame, CAB members were invited by DOE to attend public meetings in North Augusta and Columbia SC to gain their perspective on the Historic Preservation of the Cold War Resources at SRS. In conjunction with the South Carolina State Historic Preservation Office, DOE explained that while it is a goal to accelerate the decommissioning of inactive SRS facilities, they recognize that some may have historical significance. For this reason, DOE wanted public input to ensure that decisions made did not adversely affect historic properties.

Mitigation strategies to save historical and architectural information were explained at the historic preservation meetings. The public was encouraged to provide specific feedback on how DOE should select resources to be preserved. As part of its planning, DOE will define decommissioning activities that could affect historic properties and identify resources for mitigation. Based on public input, they will also consider the possibility of preserving some resources in place and/or adaptive reuse of some facilities.

In reconciling both issues, the Board has concluded that accelerated cleanup and historic preservation objectives can both be met with a focused approach. During a recent meeting, the Board issued a formal recommendation that DOE focus D&D efforts on risk reduction and mitigation rather than merely reducing the site "footprint." The Board also recommended that DOE continue to press for funds to implement the D&D Plan.

In order to preserve important artifacts and historic facilities, the Board also issued a separate recommendation that DOE expand its public involvement activities to gain more input. The Board recognized the value of the insight from not only the public but former SRS workers. It also suggested that SRS should submit a draft copy of the SRS Cold War Programmatic Agreement for stakeholder review prior to reaching a final agreement with the South Carolina Historic Preservation Office.

ume be shipped to the Waste Isolation Pilot Project (WIPP). It is also recommended that waste shipped to SRS for temporary storage is packaged according to WIPP Waste Acceptance Criteria without the need for additional processing.

*Accelerated cleanup and historic preservation objectives can both be met with a focused approach.*

## Agency Representatives in the Spotlight

*EPA assigns new representatives as Ex-Officios to the SRS CAB.*

*(A photo of Ms. Taylor was not available)*

### Dawn Taylor

Dawn Taylor earned her Bachelor's degree in Civil/Environmental Engineering from Virginia Tech. Ms. Taylor began working for the U.S. Environmental Protection Agency (EPA) in 1997 as a technical expert on groundwater remediation technologies (including bioremediation, phytoremediation, permeable reactive barriers, and in-situ oxidation) for EPA's Technology Innovation Office in Washington, DC. In 1999, Ms.

Taylor began working as a Resource Conservation Recovery Act (RCRA) specialist in EPA Region 4 in Atlanta, Georgia. She served as the RCRA permitting coordinator for the states of South Carolina and Tennessee, conducted inspections and enforcement actions at RCRA facilities throughout the southeast, and served as a senior corrective action project manager. Ms. Taylor also has experience working with Federal Facilities as the Remedial Project Manager on several active Navy and Air Force facilities and one Navy BRAC base. Currently, Ms. Taylor is the lead Remedial Project Manager and Federal Facilities Agreement Manager for the SRS team at EPA.

### Robert Pope

Mr. Pope has been working in the environmental field since 1989. Mr. Pope has been with the U.S. Environmental Protection Agency since 1991 working in the RCRA Corrective Action and Superfund Programs. He holds a Bachelor's of Science in Biology from Wofford College in Spartanburg, SC and Master's of Science in Geology from Georgia State University in Atlanta, GA. Prior to EPA, he worked for private environmental companies. Mr. Pope's background and expertise is in fields of groundwater and surface water chemistry, ecological assessments and project management. For the past several years, Mr. Pope has worked exclusively with military federal facilities. He is currently the lead federal regulator for environmental cleanups at Keesler AFB in Biloxi, MS; the Marine Corps Logistics Base in Albany, GA; and the Marine Corps Recruit Depot in Parris Island, SC and Eglin Air Force Base in the Panhandle of Florida.



*Robert Pope at a CAB recent meeting*

## Alternate Fuel Source on Trial at SRS

In March 2003, the SRS CAB adopted a second recommendation regarding the use of paper pellets mixed with coal as an alternate fuel source in site boilers. The SRS CAB previously questioned the regulatory classification of the resulting ash and the ash basin. However, SRS submitted test data of the resulting ash, which demonstrated that there is no regulatory impact from using alternate paper pellet fuel and no need to modify current ash basin permits from their current classification as an industrial solid waste landfill.

The burning of paper pellets along with coal made economic and environmental sense to the SRS CAB. Therefore they recommended that SRS and SCDHEC work together to allow the burning of paper pellets and that SCDHEC working with SRS, allow the A-Area boilers to be permitted under a modified permit based upon a case-by-case limitation determination. SCDHEC gave SRS permission to conduct a one-year pilot program.

In addition to reducing the use of coal at SRS, the practice will reduce the amount of paper it sends to the landfill for burial. A reduc-

tion in emissions from the A-Area steam plant is also anticipated. To begin the year long test, SRS produced over three tons of the pelletized fuel, mixed it with coal and loaded it into the hopper that feeds the boiler. If successful, SRS plans to make the pilot program a routine part of the operating site boilers.

*Coal and paper pellets ready to be fed to the boiler*



## SRS CAB Takes Position on WIR Lawsuit

A recent U.S. District Court ruling on the provision for Waste Incidental to Reprocessing (WIR) has prompted the SRS CAB to advise DOE to seek prompt relief from this decision. In a letter sent to Secretary of Energy Spencer Abraham, the CAB expressed concern that this decision has major impacts on addressing high level waste issues at SRS. As such, the Board feels the Idaho District Court ruling increases the risk to the environment and the people of South Carolina from continued high level waste storage.

At the heart of the matter is the definition of what constitutes high level waste. As defined in DOE Orders, waste determined to be incidental to reprocessing is not considered to be high level waste. Instead, this waste can be managed as either transuranic (TRU) waste or low level waste. The methods described in the DOE Order to determine if waste can be determined to meet the WIR criteria is either through a citation process or an evaluation process. The Natural Resources Defense Council (NRDC) filed suit challenging DOE's use of the evaluation process. Concerns expressed by the NRDC focused on the disposal of waste residuals in areas that are difficult to retrieve.

The Board has expressed support for Assistant Secretary Jessie Hill Roberson's position that this ruling jeopardizes DOE's ability to provide

safe, cost-efficient, and risk-based treatment and disposal of certain wastes. In their letter to Secretary Abraham, the Board requested that DOE appeal or seek legislative relief from this ruling. In a strongly worded plea, the Board stated that "No action and/or capitulation are unacceptable."

SRS initiatives to address tank closures, tank space management, the types and volumes of waste classified as high level, and the vitrified disposal of high level waste through the Defense Waste Processing Facility (DWPF) process are affected pending resolution of the issue. DOE has filed an appeal to the ruling but opening briefs are not expected before year's end.



*One of SRS's Two Tank Farms*

In the interim, DOE has advised the Board that it is continuing to develop an acceptable means to address SRS tank closures. In conjunction with the South Carolina Department of Health and Environmental Control (SCDHEC), efforts are underway to determine an interim operational closure process that meets the requirements of the Clean Water Act.

Through the actions of the Waste Management Committee, the Board has committed to continue to monitor the progress made towards resolving the issue that they believe is key to accelerating cleanup and reducing risks.

Visit our web site at [www.srs.gov](http://www.srs.gov) and click on Outreach Programs

### DOE Guidance Creates Concern continued

would be talking with the site contractor regarding board administration and would not require any changes during FY04. She will be looking into options for board administration over the next year and plans to have the issue resolved before FY05.

Mr. Waters has said that the Board will continue to work with Assistant Secretary Roberson in support of the cleanup mission, but will continue to seek resolution to this issue to ensure the Board's independence and to maintain stakeholder confidence.

*Wade Waters, SRS CAB Chair*

